

Preventing and Controlling Emerging and Reemerging Transmissible Diseases in the Homeless

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CME ACTIVITY

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Learning Objectives

Upon completion of this activity, participants will be able to:

- Describe practices to reduce the burden of HIV and hepatitis infection among the homeless.
- Identify how to screen for tuberculosis and treat tuberculosis in homeless settings.
- Describe the problem of scabies and body louse infections among the homeless.
- Specify the burden of illness associated with *Bartonella quintana* among the homeless and how to treat this infection.

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Homelessness is an increasing public health problem. Because of poor living conditions and limited access to healthcare systems, homeless persons are exposed to many communicable infections. We summarize the intervention measures reported to be efficient for the control and the prevention of common transmissible infections among homeless populations. Evidence suggests that appropriate street- or shelter-based interventions for targeted populations are the most efficient methods. Depending on the populations targeted, these interventions may include education, free condom distribution, syringe and needle prescription programs, chest radiography screening for tuberculosis, directly observed therapy for tuberculosis treatment, improvement of personal clothing and bedding hygiene, and widespread use of ivermectin for scabies and body louse

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infestation. Systematic vaccination against hepatitis B virus, hepatitis A virus, influenza, *Streptococcus pneumoniae*, and diphtheria is strongly recommended. National public health programs specific to homeless populations are required.

Homelessness is an increasing social and public health problem worldwide. According to the United Nations, “absolute homelessness” describes the conditions of persons without physical shelter. “Relative homelessness” describes the condition of those who have a physical shelter but one that does not meet basic standards of health and safety, such as and access to safe water and sanitation, personal safety, and protection from the elements (1). An estimated 100 million persons worldwide experience either absolute or relative homelessness (2). Homelessness is associated with numerous behavioral, social, and environmental risks that expose persons to many communicable infections, which may spread among the homeless and lead to outbreaks that can become serious public health concerns

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Article Title

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CME Questions

1. Which of the following statements about reducing the risk for incident HIV and hepatitis infection among homeless individuals is most accurate?

- A. Older homeless adults should be targeted for HIV prevention
- B. Education and skills training can reduce the practice of unprotected sex among homeless women
- C. Homeless people are less likely than other intravenous drug users to complete hepatitis B virus (HBV) vaccination
- D. Homeless people should never receive the accelerated HBV vaccination schedule

2. Which of the following statements about tuberculosis and airborne diseases among the homeless is most accurate?

- A. Most tuberculosis infections among homeless individuals are reactivations of established diseases
- B. Sputum testing detects >90% of patients with tuberculosis
- C. Screening for tuberculosis with chest x-ray may be the most cost-effective approach
- D. Directly observed therapy in the acute hospital setting is associated with the highest completion rates

3. Which of the following statements about scabies and body louse infections in the homeless is most accurate?

- A. The body louse is an efficient vector for multiple species of bacteria
- B. Ivermectin is ineffective in treating scabies
- C. A treatment regimen of clothing change and medical treatment has been demonstrated to eliminate scabies from a homeless shelter
- D. The prevalence of body lice among sheltered homeless is approximately 5%

4. Which of the following statements about *Bartonella quintana* infection is most accurate?

- A. *B. quintana* is the most common louse-borne disease reported among urban homeless
- B. *B. quintana* does not cause endocarditis
- C. Body lice are the natural reservoir for *B. quintana*
- D. Cefixime should be used for serious infections with *B. quintana*

Activity Evaluation

| | | | | |
|---|---|---|---|----------------|
| 1. The activity supported the learning objectives. | | | | |
| Strongly Disagree | | | | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |
| 2. The material was organized clearly for learning to occur. | | | | |
| Strongly Disagree | | | | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |
| 3. The content learned from this activity will impact my practice. | | | | |
| Strongly Disagree | | | | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |
| 4. The activity was presented objectively and free of commercial bias. | | | | |
| Strongly Disagree | | | | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |